

Date: Monday, 1/30/2006 3:44:00 PM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: D6005 REV.A
Job Number	: 25673		
Estimate Number	: 12127		
P.O. Number	: N/A	Part Number	: D6005180
This Issue	: 1/30/2006	S.O. No.	: N/A
Prsht Rev.	: NC	Drawing Number	: D6005 REV A
First Issue	: N/A	Project Number	: N/A
Previous Run	: N/A	Drawing Revision	: A
	Type : LANDING GEAR	Material	: N/A
Written By	: <u>[Signature]</u>	Due Date	: 6/1/2006
Checked & Approved By	: <u>[Signature]</u>	Qty:	12 Um: Each
Comment	: Est Rev:C 04/06/15 Added tolerance to Step 2 KJ/JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 00000505

06102102

- a) Extrude as per Dwg D6005 length = 180" (Ref. D6005-180)
- b) Material: 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) ) Seamless aluminum tube
- c) Minimum ultimate tensile strength = 77ksi
- d) Minimum tensile yield strength = 66ksi
- e) Material certification required

2.0	D6005180	Crosstube material
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Comment: Qty.: 0.0000 Each(s)/Unit Total : 0.0000 Each(s)  
 Crosstube extrusion

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1  
 Receive & Inspect For Transit Damage  
 Ensure material certification is attached

C206128106

(13)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK  
 Ensure Material certification comply to Dwg D6005

2020-25  
 (13)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: 28 Date: 07/10/13  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 1/30/2006 3:44:00 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: D6005 REV.A

Job Number: 25673

Part Number: D6005180

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI.005 4.1

DP/5b

07-01-30

(13)

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DP 7-1-29

(13)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: LL

DP/5b

7-1-29

8.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

07-01-31

(13)

Job Completion



LL 07-01-31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

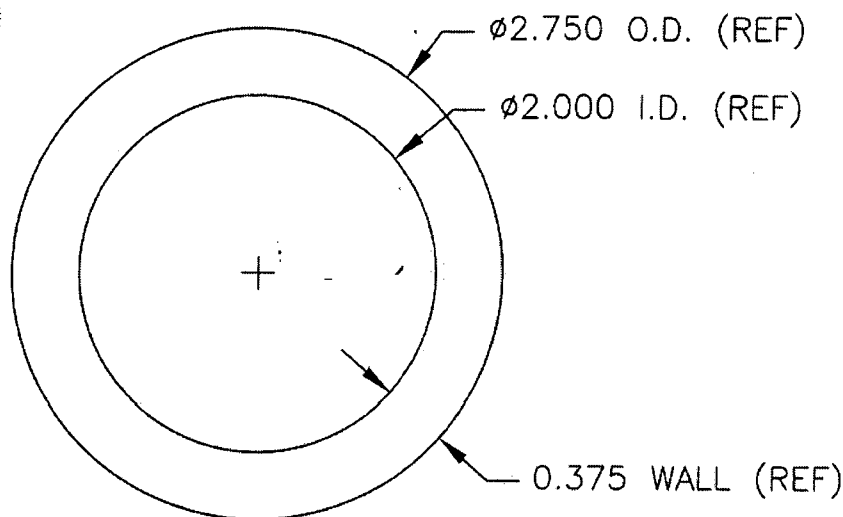
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

## SPECIFICATION CONTROL DRAWING

**RELEASED**  
00.11.24 *[Signature]*



### NOTES

- 1) D6005-XXX CROSSTUBE  
LENGTH

WHERE XXX IS LENGTH IN INCHES  
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.  
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi  
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:  
O.D.:  $\pm 0.006$  MEAN ( $\pm 0.012$  INCLUDING OVALITY)  
WALL:  $\pm 0.015$  MEAN ( $\pm 0.038$  INCLUDING ECCENTRICITY)  
LENGTH: XXX  $+0.125/-0.000$   
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY  
RETURN TO  
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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 25643

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**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**ALUnna**

# Abnahmeprüfzeugnis 3.1 - EN 10204:2004

## Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

**Kunde:**  
**Client:**Dart Aerospace Ltd.  
1270 Aberdeen Street  
K6A1K7 Hawkesbury, ON Canada**Zeugnisnummer:** 420/06  
**Cert No. / No. du certificat:****Bestellnummer:** PO00000505 ✓  
**Order No. / No. de commande****Auftrag:** 17486/6  
**Our Reference/Notre Reference:****Produkt:****Product / Produit:****Spezifikation:**  
**Specification:****Werkstoff:**  
**Alloy/Alliage:****Abmessung**  
**Size / Dimension****Kennzeichnung**  
**Marking/Marquage:**Rohre nahtlos gepresst  
Tubes seamless extruded  
-; AMS - QQ - A - 200/11E; -; Spezifikation Dart Aerospace D 6005

7075

**Zustand:**  
**Temper/État**

T 6511

2,750 INCH x 2,000 INCH x 0,375 INCH x 180,000 INCH  
D6005-180 2.750 x 0.375 x 180ALUnna-Cert No.420/06-7075-T6511-Cast No.79922-QQA-200/11E-2.750" OD x 0.375"Wall-Heat No.447/05-  
Lot17486/6-1-P.O.00000505**Lieferung****Delivered Material / Matériel délivré:**pcs.  
13lbs  
666

### 1. Chemische Analyse

### Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
79922	0,164	0,200	1,36	0,055	2,39	0,187	5,67	0,037	0,006	0,020	0,001	0,001	0,006

Elements without indication &lt; 0,01 %

### 2. Mechanische Eigenschaften

### Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
min. max.	77,0	66,0				
1	84,390 ✓	78,155 ✓	9,0		161	447/05 - 13 pcs.

**Ergebnis der  
Prüfungen:**

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

**Test results:**  
**Resultats:**We confirm that the delivery has been tested and applies to the agreements made on receipt of the order  
Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

KroosD

Certified acc. to DIN EN ISO 9001:2000, valid until 2009-03-27  
Certificate No.: 001959 QM

ALUnna